

# Louisville Metro Air Pollution Control District 701 West Ormsby Avenue, Suite 303 Louisville, Kentucky 40203-3137



# July 16, 2019

# Federally Enforceable District Origin Operating Permit Statement of Basis

Sourc	134	gers Group, I 00 Old Henry nisville, KY 40	Road		Owner	4	Rogers Group, 121 Great Circle Nashville, TN 3	Road	i
Docu	ication ments: c Comm	ent Date:	See Table 8 in 06/13/2019	section	n I				
Perm Plant	itting Er ID:	ngineer: 0145	Aaron DeWitt		1422	Pern	nit Number: NAICS	S:	O-0145-19-F 212312
Introdu	uction:								
Operation major s	ing Perm	its. Its purpose reshold levels	e is to limit the p	lantwid	e poten	tial e	mission rates fr	om th	ble District Origin his source to below empliance with all
addition	of 3 con		, $TC29$ and $TC6a$						permit includes the d the incorporation
(CO), 1 (PM <sub>2.5</sub> )	particulat . Jeffers	e matter less on County is o	than 10 micro	ns (PM nattainr	<sub>10</sub> ), and nent are	d par ea for	rticulate matter $O_3$ .	less This fa	, carbon monoxide than 2.5 microns acility is located in
Perm	it Appli	cation Type	:						
	Initial i	ssuance	Perm	it Revi Admin Minor Signif	nistrati	ve		Perm	nit renewal
Comp	oliance S	Summary							
	Compli	ance certifica	ation signed				-		dule included
	Source	is out of com	pliance			$\boxtimes$	Source is op compliance	eratii	ng in

### I. Source Information

- 1. **Product Description:** The source mines, crushes, stores and sells limestone.
- **2. Process Description:** The source mines limestone, utilizing a primary crusher underground, then conveys the limestone to secondary and tertiary crushers above ground. The limestone is screened and conveyed through the facility, then stores and sells the product.
- **3. Site Determination:** There are no other facilities that are contiguous or adjacent to this facility and under common control.

# 4. Emission Unit Summary:

Emission Unit	<b>Equipment Description</b>			
U1	Limestone Crushing Plant			
U2	Underground Equipment			
U3	Parts Washer			
IA1	Storage Tanks			

**5. Fugitive Sources:** Truck traffic.

### **6.** Permit Revisions:

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
27662-14-F	06/27/2014	07/30/2014	Initial	Initial Issuance
27662-14-F(R1)	27662-14-F(R1) 01/31/2017 03/06/2017		Admin.	Added dust control plan. Addition of Plantwide section. Update to General Condition 12 & document submission address. Updates to Acronyms and Abbreviations list. Update to Preamble.
			Signif.	Update to General Condition 10, removal of greenhouse gas limits.
O-0145-19-F	06/13/2019	07/16/2019	Renewal	-Scheduled permit renewalIncorporation of construction permit C-0145-1000-19-FAddition of 3 conveyors (TC28, TC29, and TC6a. IA)

# 7. Construction Permit History:

Permit No.	Effective Date	Description
83-05-C	2006	One (1) crushed stone processing operation with wet suppression system for control of PM emissions
221-91-C	1991	One (1) 20,000 diesel tank and one (1) 560 unleaded gasoline tank
282-89-C	1989	Jaw crusher, Pioneer 42 x 48, conveyor belts, and 6 x 16 screen and conveyor belt and wet suppression system
283-89-C	1989	Impact crusher, Universal Model 150 x 150, conveyor belt, and screens, 40 x 30 and 6 x 20, and wet suppression system
284-89-C	1989	Roll crusher, Pioneer Model 40 x 30, wet suppression system
355-95-C 1995		Pug mill, Eagle Model No. W044119-01, fed from 36" conveyor
106-98-C	1998	Wash plant
44-00C	2000	Nonmetallic mineral processing feeders, weighing, loading, storage, and conveying of limestone from the underground stone quarry
F-13-1001-C (R1)	3/7/2014	Three (3) replacement screens: NES CO 8x20 TC Scalping Screen SC1 (1,000 ton/hr), NESCO 8x24 TS Sizing Screen SC2 (500 tons/hr), NESCO 8x24 TD Finishing Screen SC3 (400 tons/hr), and Transfer Conveyor TC27 (200 tons/hr).
C-0145-1000-19-F	6/11/2019	Add underground equipment

# 8. Permit Renewal-Related Documents

Document Number	Date Received	Description
97382	02/28/2019	District issued reminder for renewal application deadline of 4/31/2019
97502	03/07/2019	Rogers Group submittal of renewal/construction application
97507	03/07/2019	Rogers Group submittal of 100a with RO signature and corrected to check both construction and renewal application boxes
97518	03/08/2019	District question regarding fees
97524	03/08/2019	Rogers Group response to question regarding fees
97664	03/20/2019	District request for clarification of crusher CR3
97670	03/21/2019	Rogers Group request to remove CR3 from permit because the equipment is located underground
97671	03/21/2019	District follow-up that CR3 would still be permitted under Reg. 7.08 even if underground
97672	03/21/2019	Rogers Group clarifies that CR3 is not the crusher that is underground, but would still like it removed from permit
97673	03/21/2019	District follow-up for clarification of CR3. Request for letter from 2005 exempting emissions of underground equipment from permitting. District request for site visit.
97824	4/1/2019	Site visit date confirmation.
98073	04/17/2019	District follow-up to site visit and request for application.
98148	4/19/2019	Rogers Group application update 100b, 100c & attachments
98157	4/19/2019	District follow-up questions on application update
98158	4/19/2019	Rogers Group response to questions
98346	5/7/2019	District request for application of parts washer
98446	5/14/2019	Rogers Group parts washer application

# 9. Emission Summary:

Pollutant	District Calculated Actual Emissions (ton/yr) 2008 Data	Pollutant that triggered Major Source Status (based on PTE)
СО	N/A	No
NO <sub>x</sub>	N/A	No
$SO_2$	N/A	No
$PM_{10}$	14.98	Yes
VOC	N/A	No
Total HAPs	N/A	No
Single HAP	N/A	No

10.	Applica	able Rec	uirements
<b>+</b> • •	TAPPHICE		

$\boxtimes$	40 CFR 60	$\boxtimes$	SIP	40 CFR 63
	40 CFR 61	$\boxtimes$	District Origin	Other

**11. Referenced MACT Federal Regulations:** The source has no MACT requirements.

12. Referenced non-MACT Federal Regulations:

40 CFR 60, Subpart OOO

Standards of Performance for Nonmetallic Mineral Processing Plants

### II. Regulatory Analysis

- **1. Acid Rain Requirements**: Rogers Group, Inc is not subject to the Acid Rain Program.
- 2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. Rogers Group, Inc does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.
- **3. Prevention of Accidental Releases 112(r):** Rogers Group, Inc does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

# 4. Basis of Regulation Applicability

#### a. **Plantwide**

Rogers Group, Inc is a potential major source for the pollutant  $PM_{10}$ . Regulation 2.17 – Federally Enforceable District Origin Operating Permits establishes requirements to limit the plantwide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source requested limits of the criteria pollutant  $PM_{10} < 25$  ton/yr, to be a FEDOOP STAR Exempt source as defined by Regulation 5.00, section 1.13.5.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Rogers Group, Inc took the total plantwide limits of 25 tpy for regulated air pollutants to be a FEDOOP STAR Exempt source.

Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit regular reports to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5. The compliance reports are due within 60 days of the end of the reporting period:

Reporting Period	Report Due Date
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

#### b. **Emission Unit U1** – Limestone Crushing Plant

## i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
TC1, TC2	1000 ton/hr	2005		Regulation 1.14 establishes standards for fugitive dust
TC5	500 ton/hr	2005	7.02, 40 CFR 60	sources.
TC3, TC4	300 ton/hr	2005		Regulation 7.08 establishes
TC6, TC6a, TC7-	200 ton/hr	2014		the requirements for PM

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
TC10, TC12-TC21, TC27-TC29				emissions from new processes that commence
TC11, WC-2, WC-3	150 ton/hr	2005		construction after September 1, 1976.
WC-1, TC22, TC23	100 ton/hr	2005		1, 1970.
TC24-TC26	50 ton/hr	2005		Regulation 7.02 adopts and
SC1	1,000 ton/hr	2013		incorporates by reference Federal New Source Performance Standards.
SC2	500 ton/hr	2013		2 Caronina Communication
SC3	400 ton/hr	2013		40 CFR 60 Subpart OOO establishes standards for
SC5	200 ton/hr	2005		above ground Nonmetallic
SC6	150 ton/hr	2005		Mineral Processing Plants.
CR1	400 ton/hr	2005		
CR2	200 ton/hr	2005		
B1-B10	100 ton/hr	2005		

# ii. Standards/Operating Limits

# 1. Opacity

(a) Regulation 40 CFR 60 Subpart OOO, section 672(b) establishes opacity standards.

### 2. PM/PM<sub>10</sub>

- (a) In accordance with Regulation 7.08, Table 1, PM standard for each cutter is:  $E = 17.31 \text{ x (tons per hour)}^{0.16} = \text{lb/hr limit}$
- (b) It has been demonstrated that the potential uncontrolled PM emissions of each piece of equipment cannot exceed the emission limits in U1 of the permit. Therefore, there are no monitoring, recordkeeping, or reporting requirements for the Regulation 7.08 standard.

# iii. Monitoring and Recordkeeping

# 1. Opacity

(a) 40 CFR 60.674(b) and 676(b) has specific record keeping requirements.

# c. **Emission Unit U2** – Underground Equipment

### i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
CUG1 – CUG8	1,000 ton/hr	2005		Regulation 1.14 establishes standards for fugitive dust
CRUG	1,000 ton/hr	2005	1.14, 7.08	sources. Regulation 7.08 establishes the requirements for PM emissions from new processes that commence construction after September 1, 1976.

# ii. Standards/Operating Limits

### 1. PM/PM<sub>10</sub>

- (a) In accordance with Regulation 7.08, Table 1, PM standard for each cutter is:  $E = 17.31 \text{ x (tons per hour)}^{0.16} = \text{lb/hr limit}$
- (b) It has been demonstrated that the potential uncontrolled PM emissions of each piece of equipment cannot exceed the emission limits in U1 of the permit. Therefore, there are no monitoring, recordkeeping, or reporting requirements for the Regulation 7.08 standard.

#### d. Emission Unit U3 – Parts Washer

# i. **Equipment:**

P/PE	Capacity		Applicable Regulation	Basis for Applicability
P1	30 gallons	2005	l 6 IX	Regulation 6.18 establishes standards for parts washers.

### ii. Standards/Operating Limits

#### 1. VOC

(a) Regulation 6.18, section 4 establishes the

requirements to install, maintain, and operate the parts washers.

## **III.** Other Requirements

- **1. Temporary Sources:** The source did not request to operate any temporary facilities.
- **2. Short Term Activities:** The source did not report any short term activities.
- 3. Emissions Trading: N/A
- **4. Alternative Operating Scenarios**: The source did not request any alternative operating scenarios.
- **5. Compliance History:** The source does not have any incidents to report.

## 6. Calculation Methodology or Other Approved Method:

<u>Limestone Crushing (U1):</u> Emission factors from AP-42, Chapter 11.19.2, Crushed Stone Processing and Pulverized Material, Table 11.19.2-2 and monthly throughput, were used to determine Potential to Emit and confirm limits requested by the source.

<u>Underground Equipment (U2):</u> Emission factors from AP-42, Chapter 11.19.2, Crushed Stone Processing and Pulverized Material, Table 11.19.2-2 and monthly throughput, were used to determine Potential to Emit and confirm limits requested by the source.

# 7. Insignificant Activities

Equipment	Quantity	PTE (tpy)	Basis for Exemption	
Diesel and Waste Oil Tanks	3	0.04 (VOC)	Regulation 1.02, section 1.38	
Shop Heater utilizing waste oil generated on site	1	4.19 (PM <sub>10</sub> )	Regulation 1.02, section 1.38	

- 1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
- 2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
- 3) The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15<sup>th</sup>.

- 4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
- 5) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
- 6) The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

### **8.** IA Emission Units with Applicable Regulations

### a. Emission Unit IA1 – Tanks

# i. Equipment:

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
T1	350 gal	1995	7.12	Regulation 7.12 establishes
Т2	500 gal	1995	7.12	the requirements for VOC of new storage vessels that commence construction after April 19, 1972.

# ii. Standards/Operating Limits

#### 1. VOC

(a) Regulation 7.12 section 3 establishes VOC standards.